

## WHAT IS CLAIMED IS:

1. A conversion circuit for a brushless dc motor connected with a dc motor drive circuit, comprising:

a rectifier unit electrically connected to an ac power source to thereby  
5 supply with a dc voltage suitable for the brushless dc motor;

a voltage-stabilizing control unit electrically connected between the rectifier unit and the dc motor drive circuit; and

a voltage-stabilizing unit electrically connected between the voltage-stabilizing control unit and the dc motor drive circuit, and adapted to supply  
10 with the stabilized dc voltage to the dc motor drive circuit;

wherein the dc voltage supplied from the rectifier unit is passed through the voltage-stabilizing control unit and the voltage-stabilizing unit to turn on or off the dc motor drive circuit, thereby limiting a passage of a high voltage through the dc motor drive circuit and providing with the stabilized dc  
15 voltage for the dc motor drive circuit.

2. The conversion circuit for the brushless dc motor as defined in Claim 1, wherein the rectifier unit is selected from a group consisted of a bridge recitifer and a diode.

3. The conversion circuit for the brushless dc motor as defined in Claim  
20 1, further comprising a pulse-wave-absorbing unit serially connected between

the rectifier unit and the dc motor drive circuit.

4. The conversion circuit for the brushless dc motor as defined in Claim 3, wherein the pulse-wave-absorbing unit is a varistor.

5. The conversion circuit for the brushless dc motor as defined in Claim 1, further comprising a filter unit serially connected between the rectifier unit and the dc motor drive circuit.

6. The conversion circuit for the brushless dc motor as defined in Claim 5, wherein the filter unit is a capacitor.

7. The conversion circuit for the brushless dc motor as defined in Claim 1, wherein the voltage-stabilizing control unit includes an operational amplifier, a diode, a first resistor, a second resistor, a third resistor, a first capacitor, a fourth resistor and a second capacitor.

8. The conversion circuit for the brushless dc motor as defined in Claim 7, wherein the diode, the first resistor, the third resistor and the first capacitor are commonly provided with a predetermined floating value of a reference voltage input into the operational amplifier for comparing with the dc voltage.

9. The conversion circuit for the brushless dc motor as defined in Claim 1, wherein the voltage-stabilizing unit is a Metal-Oxide Semiconductor Field Effect Transistor.